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June 23, 1995

Mr. Chuck Schwer
Site Management Section
Department of Environmental Conservation
Vermont Agency of Natural Resources
103 South Main Street, West Building
Waterbury, VT 05671-0404

Subject: Final Site Inspection Package

Gawet Marble & Granite, Inc.

West Rutland, Vermont TDD No. 9305-10-ATS

Reference No. 1-636-009-01J1H CERCLIS No. VTD988366597

Dear Mr. Schwer:

A copy of the Final Site Inspection Package for Gawet Marble & Granite, Inc. in West Rutland, VT is enclosed. This final report has been revised in accordance with comments received from the EPA and the State. The appendices submitted with the draft report did not require revision. Therefore, appendix documentation is not included with the final report.

If you have any questions, please do not hesitate to call.

Sincerely,

Paul A. Hughes

ARCS Program Manager

Enclosure

cc: S. Hayes (w/o enclosure)

D. Smith (w/o enclosure)

# ARCS

Remedial Planning Activities at Selected Uncontrolled Hazardous Substance Disposal Sites in Region I



## Environmental Protection Agency Region |

ARCS Work Assignment No. 08-1JZZ

Gawet Marble & Granite, Inc. West Rutland, Vermont VTD988366597 TDD#9305-10-ATS

Site Inspection Final Report

June 1995

TRC Companies, Inc. TAMS Consultants, Inc.
PEI Associates, Inc.
Jordan Communications, Inc.

# SITE INSPECTION GAWET MARBLE & GRANITE, INC. PROPERTY WEST RUTLAND, VT

#### VTD988366597

#### FINAL REPORT

#### Prepared for

# U.S. ENVIRONMENTAL PROTECTION AGENCY Region I 90 Canal Street Boston, Massachusetts 02203-2211

Work Assignment No.: 08-1JZZ

EPA Region:

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TDD No.: 9305-10-ATS

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Revision: 0

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#### 1.0 INTRODUCTION

TRC Companies, Inc. (TRCC) was requested by the Region I U.S. Environmental Protection Agency (EPA) Waste Management Division to perform a Site Inspection (SI) of the Gawet Marble & Granite, Inc. property in West Rutland, Vermont. All tasks were conducted in accordance with the TDD No. 9305-10-ATS, the SI scope of work, and technical specifications provided by the EPA under Work Assignment No. 08-1JZZ. A Preliminary Assessment (PA) completed by the Vermont Department of Environmental Conservation (VT DEC) in April 1990, concluded that due to the possibility that hazardous wastes have been disposed of at the Gawet Marble & Granite, Inc. property and the proximity of a fishery, a habitat for rare species, and drinking water sources, sampling should be conducted. Based on the information provided in the PA, an SI of the Gawet Marble & Granite, Inc property was initiated.

Background information used in the generation of this report was obtained through file scarches at Vermont Department of Environmental Protection (VTDEP) and EPA offices, telephone interviews with town officials, conversations with persons knowledgeable of the Gawet Marble & Granite, Inc. property, and conversations with other Federal, State, and local agencies. Additional information was collected during the TRCC on-site reconnaissance on June 21, 1994 and during environmental sampling on October 12, 1994.

This report follows the guidelines developed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, this report does not necessarily fulfill the requirements of other EPA regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State, or local regulations. Site Inspections are intended to provide a preliminary screening of sites to facilitate EPA's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

#### 2.0 SITE DESCRIPTION

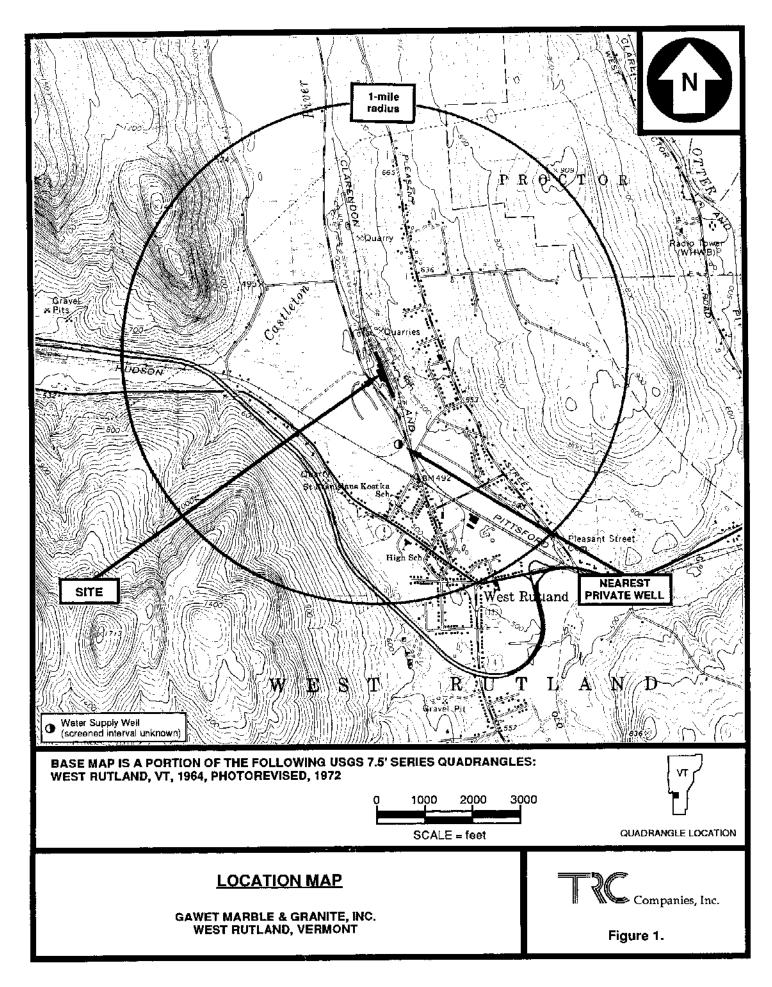
Gawet Marble & Granite, Inc. has a facility located in Center Rutland, Vermont (The Center Rutland Mill) and a facility located in West Rutland, Vermont (The West Rutland Mill). The West Rutland Mill property is the property investigated in this SI.

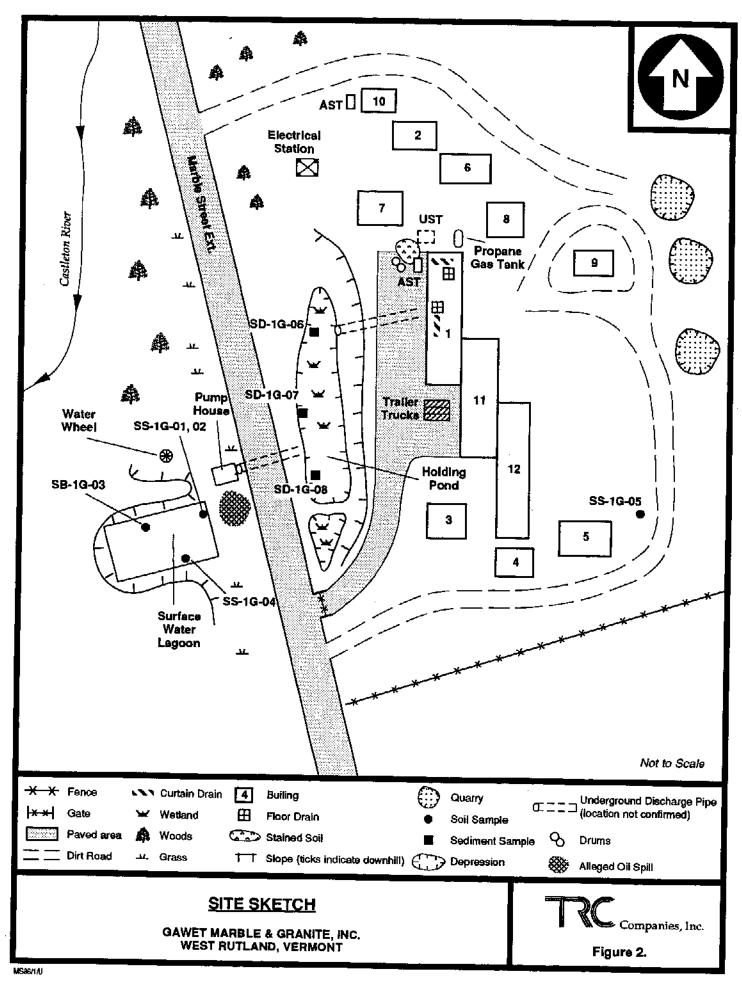
Gawet Marble & Granite, Inc. (West Rutland Mill) is located off of Marble Street Ext. in West Rutland, Rutland County, Vermont. The geographical coordinates are 43° 36′ 18.76″ north latitude and 73° 03′ 12.7″ west longitude (1) (Figure 1).

The Gawet Marble & Granite, Inc. property has been operating under Gawet Marble & Granite, Inc. from 1978 to the present (3,4). Operations at the property include rough cutting marble pieces, stockpiling unfinished pieces of marble, and storing and maintaining heavy equipment (3,4).

The Gawet Marble & Granite, Inc. property is approximately 167 acres in size and is located on relatively flat terrain (5,6). There are twelve single-story Buildings No. 1-12, seven inactive quarries, a holding pond, a pump house, a surface water lagoon, an electrical station, aboveground and underground storage tanks, and a propane gas tank associated with the property (Figure 2).

Building No. 1 is primarily used to rough cut marble pieces using diamond cutters (marble cutters). Gawet Marble & Granite, Inc. also uses this building as a storage and maintenance area for heavy equipment (bulldozer, truck, forklifts, trailers, etc.) (3,4). In addition, the Damon Printing Company leases a section of Building No. 1 to use as a storage area for bulk paper (4). There is one 250-gallon kerosene aboveground storage tank (AST) stored along the western wall of Building No. 1 (4). There are approximately four 55-gallon drums of Resin Solution composed of styrene and vinyl toluene, fifteen 55-gallon drums of waste diesel oil, hydraulic oil, and/or motor oil, two 55-gallon drums of amyl acetate, and one 55-gallon drum of acetone stored in the northern section of Building No. 1 (4). Several of the drums are





uncovered and large areas of staining are visible on the concrete floor surrounding several of the 55-gallon drums (4). Several floor and curtain drains are in close proximity to these drums (4).

Buildings No. 2, 3, and 4 are currently leased to artists who use the buildings as work shops (4). Building No. 5 is currently being used as an indoor batting cage (4). Building No. 6 is used to store empty 55-gallon drums (4). TRCC was unable to enter Buildings No. 7, 8, 9, 10, 11, and 12 due to the poor structural integrity of these buildings and/or locked doors (4).

Located west of Building No. 1 is a holding pond. This holding pond is  $15' \times 104'$  in size (4). Rinsewater generated in Building No. 1 during the marble cutting process is flushed down the curtain and floor drains and discharged into the holding pond via an underground pipe. A pump house, owned and operated by Gawet Marble & Granite, Inc. is then used to discharge surface water from the holding pond through an underground pipe to a  $30' \times 400'$  surface water lagoon that is located west of Marble Street Ext. and approximately 500 feet from Building No. 1 (3, 7, 12).

One underground storage tank (UST) is located north of building No. 1 (4). The UST has a capacity of approximately 5,000 gallons. The ground surface surrounding the UST appears to be stained with oil (4). The contents of the UST is unknown (4).

One 10,000-gallon fuel oil AST is located west of building No. 10 (4). There is no apparent soil contamination surrounding this AST (4). According to Stanley Gawet, the owner of Gawet Marble & Granite, Inc., this AST is no longer in use. One 250-gallon fuel oil AST is located west of Building No. 1. Stained soil is present in the vicinity of this AST. In addition, two unlabelled 55-gallon drums are located south of the stained soil area (4).

The Castleton River is located one-quarter mile from the property (6). The Castleton River flows south and west and empties into the Poultney River in Fair Haven (3). This river contains many species of game fish and also provides a habitat for various rare plant and

animal species (3,8). The West Rutland Marsh is located 500 feet from the property (9). This wetland area is a state designated Natural Area and Wildlife Habitat (9).

There are 89 residents located within a one-quarter mile radius of the Gawet Marble & Granite, Inc. property (10). The nearest private well is located 0.35 miles southeast of the property (11).

# 3.0 OPERATIONAL AND REGULATORY HISTORY AND WASTE CHARACTERISTICS

Gawet Marble & Granite, Inc. began operations in 1964 in Center Rutland, Vermont. In 1978, Stanley Gawet purchased the West Rutland Mill property from the Vermont Marble Company (3). No records are available describing the property history or disposal practices of the Vermont Marble Company. Gawet Marble & Granite, Inc. currently uses the West Rutland Mill facility for rough cutting marble pieces prior to their shipment to the facility's finishing shop in Center Rutland, Vermont (3).

To date, no known environmental samples have been collected from the Gawet Marble & Granite, Inc. property. The following investigative and regulatory activities have occurred at the Gawet Marble & Granite, Inc. property since 1989.

- On February 6, 1989, the Vermont Occupational Safety and Health Administration (VOSHA) conducted a complaint inspection at the West Rutland Mill (3). During an interview of an employee at the West Rutland Mill, VOSHA learned that approximately 300 gallons of waste oil had been improperly disposed of on the property in the vicinity of the pump house (3). In addition, VOSHA discovered 12-15 feet of pipe containing asbestos joints improperly disposed of on-site and buried under marble chips (3).
- On March 29, 1989, the Vermont Department of Environmental Conservation (VT DEC), RCRA program conducted a site inspection of the West Rutland Mill due to a referral report from VOSHA (3). During the inspection, oil staining was noted in the holding pond that is located west of the on-site buildings and in the surface water lagoon that is located west of Marble Street Ext. According to the inspection report, the holding pond was rimmed with oil and oil was observed floating on the surface water at one end of the pond and

underwater in other areas of the pond (12). The report estimated that the oil stained area in the surface water lagoon was 20' × 60'. According to Stanley Gawet, a drum of waste oil had been knocked over by an employee and oil had run down a floor drain which discharges to the holding pond (12). However, other reports allege that 300-800 gallons of waste oil was intentionally dumped down the floor drains as a means of waste disposal (12). During the site inspection, the VT DEC also noted drums of acetone, acetate, and waste oil stored inside the facility (12). According to Stanley Gawet, the drums of acetone and acetate were formerly used by the Vermont Marble Company to mend broken pieces of marble (12). The waste crankcase oil is generated from routine maintenance on equipment and had previously been used for dust control in the past at the Gawet Marble & Granite, Inc (12).

- In April 1990, it was reported that as much as 250-300 gallons of rinse water is flushed down the floor drains of building No. 1 and discharged into the holding pond each day (13). In April 1990, the VT DEC completed a preliminary assessment (PA) of the Gawet Marble & Granite, Inc. property. The PA noted the following wastes stored on the property: four 55-gallon drums of Resin Solution composed of styrene and vinyl toluene left over from Vermont Marble Company, five 55-gallon drums of diesel oil and approximately 12-15 55-gallon empty drums stored outside (3). Due to a potential for ground water and surface water contamination on the property, the PA report recommended that a medium priority Site Inspection be completed on the property (3).
- On July 21, 1994, TRCC personnel conducted a site reconnaissance of the Gawet Marble & Granite, Inc. property to document current site conditions. No readings above background were detected on an HNu photionization detector during the site reconnaissance (4).
- On October 12, 1994, TRCC collected eight sediment/soil samples (including a soil reference sample and a duplicate soil sample) and one aqueous rinsate blank from the Gawet Marble & Granite, Inc. property (14).

Nine potential sources of hazardous waste have been identified by TRCC. These areas include the 250-gallon kerosene AST inside of Building No. 1, the drum storage area in Building No. 1, the holding pond/surface water lagoon, the UST located north of Building No. 1, the 250-gallon fuel oil AST located west of Building No. 1, the contaminated soil located northwest of Building No. 1, the two unlabelled drums located to the west of Building No. 1, the soil in the vicinity of the pump house, and the 10,000-gallon AST fuel oil tank located west of Building No. 10.

Table 1 presents all identified structures or areas on the Gawet Marble & Granite, Inc. property that are potential sources of contamination, the containment factors associated with each source, and the relative location of each source.

TABLE 1. SOURCE EVALUATION FOR THE GAWET MARBLE AND GRANITE, INC. PROPERTY				
Potential Source Areas	Containment Factors	Spatial Location		
AST (kerosene)	None	Along western wall of Building No. 1		
Drums (22)	many drums uncovered	Inside of Building No. 1		
Holding Pond/Surface Water Lagoon	None	West of Building No. 1		
UST (contents unknown)	None	North of Building No. 1		
Fuel Oil AST	None	West of Building No. 1		
Contaminated Soil	None	Northwest of Building No. 1		
Unlabelled Drums (2)	None	West of Building No. 1		
Contaminated Soil	None	In vicinity of pump house		
Fuel Oil AST	None	West of Building No. 10		

References: 3, 4

Table 2 summarizes the types of potentially hazardous substances which have been disposed, used, or stored on the property.

TABLE 2. HAZARDOUS WASTE QUANTITY FOR THE GAWET MARBLE AND GRANITE, INC. PROPERTY					
Substance	Quantity or Volume/Area	Years of Usc/Storage	Years of Disposal	Source Area	
Acetone	One 55-gallon drum	Unknown	Unknown	Drums	
Amyl Acetate	Two 55-gallon drums	Unknown	Unknown	Drums	
Resin solution: (styrene and vinyl toluene)	Four 55-gallon drums	Unknown	Unknown	Drums	
Waste diesel oil, hydraulic oil, and/or motor oil	Fifteen 55-gallon drums	Unknown	Unknown	Drums	
Kerosene	One 250-gallon AST	Unknown	Unknown	AST	
Waste oil	300-800 gallons	Unknown	Unknown	Holding pond and surface water lagoon	
	300 gallons	Unknown	Unknown	Contaminated soil	

References: 3,4

No sampling was conducted at the Gawet Marble & Granite, Inc. property prior to the start of this SI.

#### 4.0 WASTE/SOURCE

On October 12, 1994, TRCC collected eight sediment/soil samples (including a soil reference sample and a duplicate soil sample) and one aqueous rinsate sample (14). All samples were analyzed through the Contract Laboratory Program (CLP) for Target Compound List (TCL) volatile organic compounds (VOCs); TCL semivolatile organic compounds (SVOCs) which include base-neutral/acid extractables (BNAs); polychlorinated biphenyls (PCBs), and pesticides; and Target Analyte List (TAL) metals and cyanide under Routine Analytical Services (RAS) Case Number 22768 (19,20). Table 3 presents a summary of the source samples collected at the Gawet Marble & Granite property.

TABLE 3. SAMPLE SUMMARY - GAWET MARBLE & GRANITE, INC. PROPERTY Source Samples Collected by TRCC on October 12, 1994					
Sample Location Number	Traffic Report No.	Time Collected	Remarks	Sample Source	
SS-1G-01	AJB62 MAEN39	1250	Grab/light brown to gray f-m sand, well sorted, moist; 2"-8"	Soil sample collected from the former surface water lagoon approximately 20' southwest of pump house.	
SS-1G-02	AJB63 MAEN40	1250	Duplicate of SS-1G-01; 2"-8"	Duplicate of SS-1G-01.	
SB-1G-03	AJB64 MAEN41	1330	Grab/orange to brown clay w/s silt and organics and f-m sand; 24"-30"	Deep soil sample collected from northwestern portion of surface water lagoon 45' west of SS-1G-01/02.	
SS-1G-04	AJB65 MAEN42	1400	Grab/orange clay w/s f sand and organic material; 0"-10"	Soil sample collected from southern portion of surface lagoon, 70' south of SS-1G-01/02.	
SS-1G-05	AJB66 MAEN43	1145	Grab/black to dark brown f-m sand and silt w/s organic material; 0"-8"	Reference soil sample collected from undeveloped eastern section of the property, approximately 150' east of Building No. 5.	
SD-1G-06	AJB67 MAEN44	1330	Grab/gray and yellow silt w/s fine sand and organic material; 1"-8"	Sediment sample collected at North End of Holding Pond.	
SD-1G-07	AJB67 MAEN45	1240	Grab/gray and yellow silt w/s fine sand and organic material; 1"-8"	Sediment sample collected at north end of holding pond.	
SD-1G-08	AJB68 MAEN46	1205	Grab/gray and yellow silt w/s fine sand and organic material; 1"-8"	Sediment sample collected from southern end of west bank of holding pond.	
RB-1G-09	AJB69 MAEN47	1115	NA	Equipment rinsate blank collected for quality control purposes.	

SS - surface soil sample

References: 14

SB - subsurface soil sample

SD - sediment sample NA - not applicable RB - rinsate blank

Table 4 summarizes the analytical results of source samples collected by TRCC. Organic compounds and inorganic elements detected in source samples were compared to concentrations detected in reference sample SS-1G-05. Compounds/elements have been listed in Table 4 based on detection at a concentration at least three times greater than the reference concentration of the same compound or element. If the compound or element was not detected in reference sample SS-1G-05, then the reference sample quantitation limit (SQL) or sample detection limit (SDL) is used as a reference value. In those cases, the compound or element is listed on Table 4 if its concentration was greater than or equal to the reference SQL/SDL. For the purpose of this report, compounds and elements listed on Table 4 are referred to as exceeding "reference values." The complete analytical results are presented in Appendix A.

In accordance with EPA guidance, TRCC selected a reference soil sample. Sample SS-1G-05, which was collected from an apparently undisturbed area approximately 150 feet east of Building No. 5, was selected as the soil reference sample (6).

Some of the samples collected by TRCC were qualified due to problems identified during analysis. Values that have a "J" qualifier are approximate values. Samples that have a "D" qualifier were diluted during analysis.

TABLE 4.	FABLE 4. SUMMARY OF ANALYTICAL RESULTS: SOURCE SAMPLE ANALYSIS FOR THE GAWET MARBLE AND GRANITE, INC. PROPERTY				
Sample Location No.	Compound/Element	Concentration	Reference Concentration	Comments	
Matrix: Soil				<u> </u>	
SB-1G-03	Cadmium Calcium Zinc	1.2 mg/kg 229,000 mg/kg 168 J mg/kg	57,200 mg/kg	6.0 × SDL 4.0 × Ref. 3.3 × Ref.	
SS-1G-04	Cadmium Calcium Silver	0.55 mg/kg 241,000 mg/kg 0.92 mg/kg	0.2 mg/kg 57,200 mg/kg	2.8 × SDL 4.2 × Ref. 1.2 × SDL	

TABLE 4. CONTINUED				
Sample Location No.	Compound/Element	Concentration	Reference Concentration	Comments
Matrix: Sed	iment			
SD-1G-06	Acenaphthylene Acenapthene Fluorene	120 J µg/kg 140 J µg/kg 180 J µg/kg	34 J µg/kg 46 J µg/kg 59 J µg/kg	3.5 × Ref. 3.0 × Ref. 3.0 × Ref.
	Phenanthrene Anthracene Carbazole	2400 μg/kg 450 J μg/kg 300 J μg/kg	610 μg/kg 120 J μg/kg	3.9 × Ref. 3.8 × Ref.
	Fluoranthene Pyrene Benzo(a)anthracene	6200 μg/kg 6100 μg/kg	870 μg/kg 720 μg/kg	5.1 × Ref. 7.1 × Ref. 8.5 × Ref.
	Chrysene Benzo(b)fluoranthene Benzo(a)pyrene	4200 μg/kg 6600 μg/kg	410 μg/kg 470 μg/kg 420 μg/kg	8.3 × Ref. 8.9 × Ref. 15.7 × Ref.
	Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene	3300 µg/kg 1200 µg/kg 540 J µg/kg	420 μg/kg 240 μg/kg 120 J μg/kg	7.8 × Ref. 5 × Ref. 4.5 × Ref.
	Benzo(g,h,i)perylene 4,4'-DDE 4,4'-DDT	1200 μg/kg 14 μg/kg 7.1 μg/kg	260 μg/kg 4 μg/kg 4.6 μg/kg	4.6 × Ref. 3.5 × Ref. 1.5 × SQL
	Methoxychlor Endrin Aldehyde Cadmium	30 μg/kg 7.4 μg/kg 1.7 μ <b>g/k</b> g	23.6 μg/kg 4.6 μg/kg 0.2 μg/kg	1.3 × SQL 1.6 × SQL 8.5 × SQL
OD 10 05	Vanadium Zinc	52.3 μg/kg 262 μg/kg	8.4 μg/kg 51.2 μg/kg	6.2 × Ref. 5.1 × Ref.
SD-1G-07	Acetone 2-Butanone Acenaphthene	100 J μg/kg 28 μg/kg 260 μg/kg	14 μg/kg 14 μg/kg 46 μg/kg	7.1 × SQL 2.0 × SQL 5.7 × Ref.
	Fluorene Phenanthrene Anthracene	320 J μg/kg 3400 μg/kg 720 μg/kg	59 μg/kg 610 μg/kg	5.4 × Ref. 5.6 × Ref. 6.0 × Ref.
	Carbazole Fluoranthene Pyrene	400 J μg/kg 5600 μg/kg	58 µg/kg 870 µg/kg	6.9 × Ref. 6.4 × Ref.
	Benzo(a)anthracene Chrysene	5400 μg/kg 2600 μg/kg 3000 μg/kg	720 μ <b>g/kg</b> 410 μg/kg 470 μg/kg	7.5 × Ref. 6.3 × Ref. 6.4 × Ref.
	Benzo(b)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene	4300 μg/kg 2400 μg/kg 1400 μg/kg	420 µg/kg 420 µg/kg	10.2 × Ref. 5.7 × Ref.
	Dibenz(a,h)anthracene Benzo(g,h,i)perylene 4,4'-DDE	640 J μg/kg 1400 μg/kg	120 J μg/kg 260 mg/kg	5.8 × SQL 5.3 × SDL 5.4 × SDL
	Methoxychlor Cadmium	12 μg/kg 31 mg/kg 0.58 mg/kg	4 mg/kg 23.6 mg/kg 0.2 mg/kg	3.0 × Ref. 1.3 × SQL 2.9 × SDL
	Nickel Vanadium	29.4 mg/kg 126 mg/kg	8.2 mg/kg 8.4 mg/kg	3.6 × Ref. 15 × Ref.

	TABLE 4. CONTINUED				
Sample Location No.	Compound/Element	Concentration	Reference Concentrati	·	
Matrix: Sedi	ment				
SD-1G-08	Acetone 2-Butanone Acenaphthene Fluorene Phenanthrene Anthracene Carbazole Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(a,h)perylene Benzo(g,h,i)perylene 4,4'-DDE Methoxychlor Beryllium Nickel Vanadium	76 J µg/l 24 µg/l 190 J µg/l 260 J µg/l 3100 µg/l 3100 µg/l 380 J µg/l 8100 D µg/l 8100 D µg/l 3600 µg/l 3600 µg/l 3600 µg/l 1900 µg/l 850 µg/l 1900 µg/l	Kg 46 J µg Kg 59 J µg Kg 610 µg Kg 120 µg Kg 58 µg Kg 720 µg Kg 410 µg Kg 420 µg Kg 420 µg Kg 240 µg Kg 240 µg Kg 260 µg Kg 260 µg Kg 4 µg Kg 36 µg	g/kg	

µg/kg · micrograms per kilogram;

mg/kg - milligram per kilogram;

Ref. - reference sample: SS-1G-05 for soil samples, SD-1G-06 for sediment samples.

SDL - sample detection limit.

SQL - sample quantitation limit.

J - quantitation is approximate due to limitations identified during quality control review.

D - sample diluted during analysis

References: 19, 20

No organic compounds were detected at concentrations exceeding reference values in the soil samples that were collected from the surface water lagoon (SS-1G-01, SS-1G-02, SB-1G-03, SS-1G-04). A total of four inorganic elements were detected in lagoon samples SB-1G-03 & SS-1G-04. Inorganic concentrations ranged from 0.55 milligrams per kilogram (mg/kg) of cadmium to 241,000 mg/kg of calcium. Cadmium and calcium were detected in both the shallow soil sample (SS-1G-04) and the deep soil sample (SB-1G-03). Zinc was only detected in the shallow sample, and silver was only detected in the deep sample.

For the sediment samples that were collected from the holding pond (SD-1G-06, SD-1G-07, SD-1G-08), acetone and 2-butanone were the only VOCs detected at concentrations exceeding reference values. Both compounds were detected in samples SD-1G-07 and SD-1G-08. Acetone concentrations ranged from 76 micrograms per kilogram (µg/kg) to 100 µg/kg. As mentioned in Section 3.0, a history of acetone use is suggested upon the claims of Mr Stanley Gawet, who states that the Vermont Marble Company used acetone to mend broken marble. A 55-gallon drum of acetone, supposedly left behind by the Vermont Marble Company, is still present in the Building No. 1 storage area. 2-butanone values ranged from 24 µg/kg to 28 µg/kg.

A total of fifteen SVOC compounds were detected at concentrations exceeding reference values in samples SD-1G-06, SD-1G-07, and SD-1G-08. Acenaphthene, fluorene, phenanthrene, anthracene, carbazole, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(a)pyrene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene were detected in all three sediment samples. In addition, acenaphthylene was detected in SD-1G-06. SVOC concentrations ranged from 120 μg/kg of acenaphthylene to 8100 μg/kg of both fluoranthene and pyrene.

A total of four pesticides were detected at concentrations exceeding reference values in samples SD-1G-06, SD-1G-07, and SD-1G-08. 4,4'-DDE and methoxychlor were detected in all three sediment samples. In addition, 4,4'-DDT, and endrin aldehyde were also detected in sample SD-1G-06. Pesticide values ranged from 7.1 μg/kg of 4,4'-DDT to 82 μg/kg of methoxychlor.

A total of five inorganic elements were detected at concentrations exceeding reference values in samples SD-1G-06, SD-1G-07 and SD-1G-08. Inorganic concentrations ranged from 0.58 mg/kg of cadmium to 512 mg/kg of vanadium.

#### 5.0 GROUND WATER PATHWAY

The Gawet Marble & Granite, Inc. property is mapped as pits and dumps irregular in shape and associated with piles of slate and marble from the quarries. The adjacent soils are of the

Linwood Series and are very poorly drained soils that are formed in deposits of organic material over loamy sediments in bogs. The surface soil is a black muck that is 25 inches thick. Surficial materials in the area consist of lacustrine clays and silts. These materials are poorly drained with medium to high plasticity (3).

West Rutland is located within the Taconic Mountains. These mountains are described as being low, rounded mature mountains that have older layers lying on the top. The bedrock belongs to the Middle Ordovician, Chazy correlation, Buchards formation. This formation consists of clay-based shales and slates and has minor occurrences of quartzite and carbonate rocks. Bordering this formation, is the Beldens formation which consists of gray limestone with one-quarter to one-half inch of a brown sandy layer (3).

Ground water within four miles of the Gawet Marble & Granite, Inc. property is used for drinking by the towns of Rutland, West Rutland, the City of Rutland, Clarendon, Castleton, Ira, and Procter (11). Ground water is used both by public and private systems and a total of approximately 3,033 people are served by this ground water (11). There is one public drinking water supply source, the West Rutland Well system, located within a four mile radius of the property (11). The West Rutland Well system is located on the Clarendon River, approximately 1.6 miles southeast of the Gawet Marble & Granite, Inc. property. The system consists of two overburden wells and serves approximately 2,346 people (11). The West Rutland Well System is located in a well head protection area (21). Approximately 599 people obtain drinking water from private wells that are located within four miles of the property (11). The nearest private drinking well is located 0.35 miles to the southeast of the Gawet Marble & Granite, Inc. property (11).

Table 5 lists the public ground water supply sources within four miles of the property.

TABLE 5. PUBLIC GROUND WATER SUPPLY SOURCES WITHIN FOUR MILES OF GAWET MARBLE AND GRANITE, INC.				
Distance/Direction from Property	Source Name	Locations of Source	Estimated Population Served	Source Type
1.6 miles SE	West Rutland Wells	West Rutland	2,346	Two overburden wells

Reference: 11

Table 6 summarizes the estimated drinking water populations served by ground water sources within four miles of the site.

TABLE 6. ESTIMATED DRINKING WATER POPULATIONS SERVED BY GROUND WATER SOURCES WITHIN FOUR MILES OF THE GAWET MARBLE AND GRANITE, INC. PROPERTY				
Radial Distance from Gawet (Miles)	Estimated Population Served by Private Wells	Estimated Population Served by Public Wells	Total Estimated Population Served by Ground Water Sources Within the Ring	
0.00 < 0.25	0	0	0	
0.25 < 0.50	13	0	13	
0.50 < 1.00	37	0	37	
1.00 < 2.00	116	2,367	2,483	
2.00 < 3.00	170	27	197	
3.00 < 4.00	263	40	303	
TOTAL	599	2,434	3,033	

Reference: 11

#### 6.0 SURFACE WATER PATHWAY

There are three routes by which wastes from the Gawet Marble & Granite, Inc. property could enter the surface water pathway. As mentioned in Section 2.0, rinsewater generated during the marble cutting process is discharged to floor drains in Building No. 1 and is routed towards a holding pond and then to a surface water lagoon via a series of underground pipes. Although the surface water lagoon is in close proximity to the Castleton River, the lagoon is in a depressed area and it is therefore unlikely that the water from this lagoon would flow to another surface waterbody.

A more likely route by which wastes from the Gawet Marble & Granite, Inc. property can enter the surface water pathway is from runoff from other source areas. The Gawet Marble & Granite, Inc. property is located in an area that receives 34.91 inches of precipitation annually (3). The topography of the area suggests that precipitation may flow overland towards the West Rutland Marsh. This marsh is located 500 feet from the property and is the most probable point of entry (PPE) to the surface water pathway (9). Runoff entering the West Rutland Marsh, which fronts the Castleton River, would be discharged into the Castleton River.

Although it has not been investigated thoroughly, the presence of an abandoned water wheel suggests that a sluice may have at one time existed that directed surface water from the property towards the river (4).

The Castleton River flows south and west and empties into the Poultney River in Fair Haven (3). The Castleton River is a Class C river and is therefore suitable for recreational boating, irrigation of crops that are cooked before consumption, and as a habitat for wildlife and for common food and game fishes indigenous to the region (8). Once runoff has entered the Castleton River system via the West Rutland Marsh, it flows 0.7 miles to the south before terminating, and it flows 15 miles to the west before emptying into the Poultney River in Fair Haven (6, 9).

Several types of sensitive environments, including natural areas, wildlife habitats, endangered species habitat, and wetlands are located within 15-miles downstream of Gawet Marble & Granite, Inc. (8) (Figure 3). The West Rutland Marsh is a state designated Natural Area (8). The marsh has also been designated as a Wildlife Habitat and provides a habitat for water birds (8,9). An Endangered Species Habitat has been designated along the Castleton River, approximately 7.6 miles downstream of the PPE (8,9). This habitat extends for approximately two miles (8). There are approximately six miles of wetlands that front the Castleton River (9). Wetlands located within 15 downstream miles of Gawet Marble & Granite, Inc. are designated as palustrine and lacustrine (3). The palustrine wetlands consist of emergent, open water, and forested classes with water regimes ranging from intermittently flooded to saturated. The lacustrine wetland is described as a limnetic, open water class with a water regime of intermittently exposed/permanent (3,15,16,17).

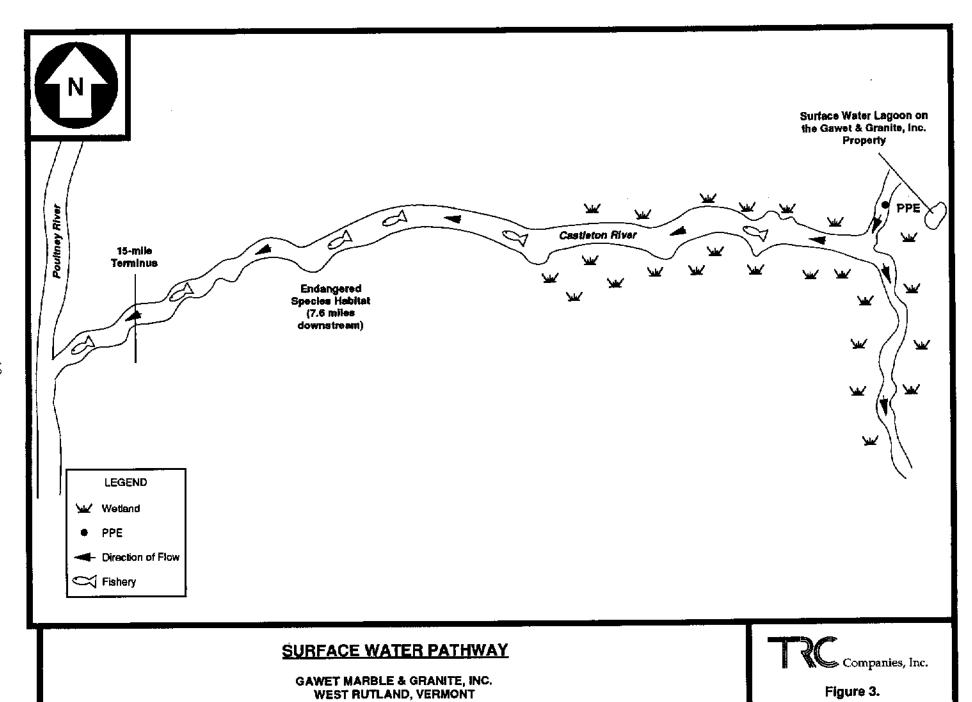
The entire length of the Castleton River can be classified as a fishery (9). Large mouth bass, small mouth bass, rainbow trout, brook trout and brown trout are all native to the area (8).

There are no surface water intakes located within 15 downstream miles of the Gawet Marble & Granite, Inc. property. Surface water sampling has never been conducted at the Gawet Marble & Granite, Inc. property.

#### 7.0 SOIL EXPOSURE PATHWAY

Gawet Marble & Granite, Inc. currently has three full-time employees working at the West Rutland Mill facility (4). These employees spend the majority of their time working in Building No. 1 (4). The number of Damon Printing Company employees onsite is unknown. No information is currently available as to how many artisans are utilizing Buildings No. 2, 3 and 4. It has been suggested that several artists are actually living in Buildings No. 2, 3, and 4; however, TRCC was unable to confirm this.

The nearest residence to the Gawet Marble & Granite, Inc. property is located approximately 500 feet from the property (6). There are no residences within 200 feet of the property area



(6). There are no schools, daycare facilities, or sensitive terrestrial environments within 200 feet of the property (6). Approximately 1,204 individuals reside within one mile Gawet Marble & Granite, Inc. property (10).

No surface soil samples had been collected from the Gawet Marble & Granite, Inc. property prior to TRCC's SI. TRCC collected five soil samples from the lagoon area. The lagoon area is considered to be a source area. Therefore, tables summarizing surface soil sampling details and surface soil sampling results are included in Section 4.0 of this report.

#### 8.0 AIR PATHWAY

The nearest residence to the Gawet Marble & Granite, Inc. property is located approximately 500 feet from the property (6). Eighty-nine individuals live within a quarter mile radius of the property, and 7,848 individuals live within a four mile radius of the property (10). Table 7 summarizes the estimated population residing within four miles of the property. The population was estimated by counting houses on the most current topographic maps and multiplying the number of houses by the current U.S. Census Bureau's persons per household figure for each town (10).

TABLE 7. ESTIMATED POPULATION WITHIN FOUR MILES OF THE GAWET MARBLE & GRANITE, INC. PROPERTY				
Radial Distance from the Property (miles) Estimated Population				
	0.00 < 0.25	89		
	0.25 < 0.50	281		
	0.50 < 1.00	834		
	1.00 < 2.00	1,002		
	2.00 < 3.00	796		
3.00 < 4.00		4,846		
	TOTAL	7,848		

The quarries located within the boundaries of the Gawet Marble & Granite, Inc. property are state designated Natural Areas (9). There are 1,629 acres of wetlands located within four radial miles of the Gawet Marble & Granite, Inc. property (9). Approximately 685 of these acres belong to the West Rutland Marsh (8). The West Rutland Marsh is located 500 feet from the property and is designated as a Natural Area and as a Wildlife Habitat (8,9).

According to the Vermont Department of Fish and Wildlife, five rare plant and animal species are known to exist within a two-mile-radius of the property (18). Three of these species (Cistothorus platensis, Corallorhiza Odontorhiza, and Dracocephalum parviflorum) are assigned the state status of threatened (18). Two of these species (Desmodium cuspidatum and Polygonum douglasii) are assigned the state status of endangered (18).

Air sampling has never been conducted at the Gawet Marble & Granite, Inc. property.

#### 9.0 SUMMARY

Gawet Marble & Granite, Inc. (West Rutland Mill) is located off of Marble Street Ext. in West Rutland, Rutland County, Vermont. The property was originally owned by the Vermont Marble Company. No records are available describing the site history or disposal practices of the Vermont Marble Company. Gawet Marble & Granite, Inc. purchased the property from the Vermont Marble Company in 1978, and has owned it ever since. Gawet Marble & Granite, Inc. use the West Rutland Mill facility to rough cut marble pieces and to store and maintain heavy equipment.

The following information is available regarding hazardous waste sources on the Gawet Marble & Granite, Inc. property. In February 1989, the Vermont Occupational Safety and Health Administration (VOSHA) learned that approximately 300 gallons of waste oil were reportedly improperly disposed in the vicinity of the pump house. In March 1989, the Vermont Department of Environmental Conservation (VT DEC) observed oil staining in both the holding pond and the surface water lagoon. The oil originated in Building No.1, was flushed down the floor drains, and traveled to the holding pond and the surface water lagoon

via a series of underground pipes. While the owner of Gawet Marble & Granite, Inc. claims that the oil was accidently spilled, other reports allege that 300-800 gallons of oil were intentionally dumped down the floor drain as a means of disposal. In July 1994, TRCC conducted a site reconnaissance and documented that there are drums of acetone, amyl acetate, Resin solution composed of styrene and vinyl toluene, waste diesel oil, hydraulic oil, and/or motor oil stored inside Building No. 1. Several of these drums were uncovered and staining was observed on the floor around these drums. TRCC also observed stained soil located northwest of Building No.1 and in the vicinity of a UST and an AST. A second AST is located west of Building No. 10.

Ground water within four miles of the Gawet Marble & Granite, Inc. property is used for drinking by the towns of Rutland, West Rutland, the City of Rutland, Clarendon, Castleton, Ira, and Procter. Ground water is used both by public and private systems and a total of approximately 3,033 people are served by this ground water. There is one public drinking water supply source, The West Rutland Well system, located within a four-mile-radius of the property. The West Rutland Well system is located on the Clarendon River, 1.6 miles southeast of the property. The system consists of two overburden wells and serves approximately 2,346 people. Approximately 599 people obtain drinking water from private wells that are located within four miles of the property. The nearest private drinking well is located 0.35 miles to the southeast of the property.

Several types of sensitive environments, including natural areas, wildlife habitats, endangered species habitat, and wetlands are located within 15-miles downstream of Gawet Marble & Granite, Inc. (Figure 3). The West Rutland Marsh is a state designated Natural Area. The marsh has also been designated as a Wildlife Habitat and provides a habitat for water birds. An Endangered Species Habitat has been designated along the Castleton River, approximately 7.6 miles downstream of the probable point of entry. This habitat extends for approximately two miles. There are approximately 6 miles of wetlands that front the Castleton River. Wetlands located within 15 downstream miles of the West Rutland Mill site are designated as palustrine and lacustrine.

The entire length of the Castleton River can be classified as a fishery. Large mouth bass, small mouth bass, rainbow trout, brook trout and brown trout are all native to the area.

The nearest residence to the Gawet Marble & Granite, Inc. property is located approximately 500 feet from the property. There are no residences within 200 feet of the source area. There are no schools, daycare facilities, or sensitive terrestrial environments within 200 feet of the property. Approximately 1,204 individuals reside within one mile of the Gawet Marble & Granite, Inc. property.

According to the Vermont Department of Fish and Wildlife, five rare plant and animal species are known to exist within a two-mile-radius of the property. Three of these species (Cistothorus platensis, Corallorhiza Odontorhiza, and Dracocephalum parviflorum) are assigned the state status of threatened. Two of these species (Desmodium cuspidatum and Polygonum douglasii) are assigned the state status of endangered.

On October 12, 1994, TRCC collected five soil samples from the surface water lagoon and three sediment samples from the holding pond. No organic compounds were detected at concentrations exceeding reference values in the lagoon samples (SS-1G-01, SS-1G-02, SB-1G-03, SS-1G-04). A total of four inorganic elements were detected in lagoon samples SB-1G-03 & SS-1G-04. Inorganic concentrations ranged from 0.55 milligrams per kilogram (mg/kg) of cadmium to 241,000 mg/kg of calcium.

For the sediment samples that were collected from the holding pond (SD-1G-06, SD-1G-07, SD-1G-08), acetone and 2-butanone were the only VOCs detected at concentrations exceeding reference values. Both compounds were detected in samples SD-1G-07 and SD-1G-08. Acetone values ranged from 76 micrograms per kilogram (µg/kg) to 100 µg/kg. As mentioned in Section 3.0, a history of acetone use is suggested upon the claims of Mr Stanley Gawet, the owner of Gawet Marble & Granite, Inc., who states that the Vermont Marble Company used acetone to mend broken marble. A 55-gallon drum of acetone, supposedly left behind by the Vermont Marble Company, is still present in the Building No. 1 storage area. 2-butanone values ranged from 24 µg/kg to 28 µg/kg. A total of fifteen SVOC compounds

were detected at concentrations exceeding reference values in samples SD-1G-06, SD-1G-07, and SD-1G-08. SVOC concentrations ranged from 120 μg/kg of acenaphthylene to 8100 μg/kg of both fluoranthene and pyrene. A total of four pesticides were detected at concentrations exceeding reference values in samples SD-1G-06, SD-1G-07, and SD-1G-08. Pesticide values ranged from 7.1 μg/kg of 4,4′DDT to 82 μg/kg of methoxychlor. A total of five inorganic elements were detected at concentrations exceeding reference values in samples SD-1G-06, SD-1G-07 and SD-1G-08. Inorganic concentrations ranged from 0.58 mg/kg of cadmium to 512 mg/kg of vanadium.

#### 10.0 REFERENCES

- 1. Gabis, C. (TRCC), 1994. Project Note: Longitude and Latitude Calculations. July 1.
- Reference deleted.
- 3. VT DEC, 1990. Preliminary Assessment of Gawet Marble & Granite, Inc.- West Rutland Mill facility. Conducted by the Vermont Department of Environmental Conservation for U.S. EPA. April.
- 4. TRCC Field Logbook for Site Investigation, Gawet Marble & Granite, Inc. property. TDD No. 9305-10-ATS. June 21, 1994 and October 12, 1994.
- 5. Letter from William J. Kelley (Lister, Town of West Rutland to Tracy Jones (TRCC), RE: Area of Gawet Marble & Granite, Inc. property. 1994.
- 6. USGS, 1964. West Rutland Quadrangle, U.S. Geological Survey 7.5-minute Series Topographic Map. Photorevised 1972.
- 7. VT ANR Trip Report for Gawet Marble & Granite, Inc. West Rutland Vermont. February 20, 1990.
- 8. Vermont Rivers Study, Vermont Agency of Environmental Conservation, with the assistance of the Natural Park Service, Mid-Atlantic Regional Office. February 1986.
- 9. Gabis, C. (TRCC). 1994. Project Note: Surface Water Information. July 1.
- 10. Gabis, C. (TRCC). 1994. Project Note: Air Pathway Calculations. July 1.
- 11. Gabis, C. (TRCC). 1994. Project Note: Ground Water Use Information and Calculations. July 1.
- 12. VT DEC Trip Report for Gawet Marble & Granite, Inc. West Rutland, Vermont. March 29, 1989.
- 13. Linda Guere (Vermont Agency of Natural Resources, Department of Environmental Conservation) to Brian Kooiker (Chief of Permits), RE: Discharge of rinsewater at Gawet Marble & Granite, Inc. 1990.
- 14. TRCC Trip Report for Gawet Marble & Granite, Inc. West Rutland, Vermont. TDD No. 9305-10-ATS. October 19, 1994.
- 15. U.S. Fish and Wildlife Service, 1977. 1:24,000- Scale National Wetlands Inventory Map, West Rutland Quadrangle.

- 16. U.S. Fish and Wildlife Service, 1977. 1:24,000- Scale National Wetlands Inventory Map, Thorn Hill, NY-VT Quadrangle.
- 17. U.S. Fish and Wildlife Service, 1977. 1:24,000- Scale National Wetlands Inventory Map, Poultney, VT-NY Quadrangle.
- 18. Letter from Everet Marshall (Vermont Agency of Natural Resources; Department of Fish & Wildlife) to Tracy Jones (TRCC), RE: Significant Natural Communities and Threatened and Endangered Species in Vicinity of Gawet Marble & Granite, Inc. property. 1994.
- Organic Data Validation Report, Case Number 22768, for CLP Sample Results. Samples Collected by TRCC at Gawet Marble & Granite, Inc. on October 12, 1994. January 13, 1995.
- 20. Inorganic Data Validation Report, Case Number 22768, for CLP Sample Results. Samples Collected by TRCC at Gawet Marble & Granite, Inc. on October 12, 1994. January 13, 1995.

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21. West Rutland F.D. No. 1 WSID No. 5244 Topo 16D.

### APPENDIX A

# TRCC SAMPLING RESULTS FOR GAWET MARBLE & GRANITE, INC. OCTOBER 12, 1994

Appendix A included in Draft Report (April 20, 1995)

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